

Amendments To The Claims

1. (previously presented) A process for converting a fuel into reformulated fuel for use in a fuel cell or other energy-producing systems, the process comprising the steps of fractionating the fuel into a light fractionate and a heavy fractionate, and reformulating the light fractionate in a steam reformer into a reformat which is suitable for use as a fuel for the fuel cell or other energy-producing device.
2. (previously presented) A process as in claim 1 in which the fractionating step is carried out by a step selected from the group consisting of boiling point fractionation, vacuum fractionation, vacuum distillation, filtration, membrane separation, and adsorption.
3. (previously presented) A process as in claim 1 and further including the step of desulfurizing the light fraction.
4. (currently amended) A process as in claim 3 in which the desulfurizing step is carried out by a step selected from the group consisting of adsorption and hydrodesulfurization.
5. (currently amended) A process as in claim 1 in which the reformulating step is carried out by reforming the light fractionate at a temperature below ~~600°C~~ 600°C to produce a first reformat, and reforming the first reformat at a temperature above ~~600°C~~ 650°C to produce a second reformat.
6. (previously presented) A process as in claim 1 including the step of burning the heavy fractionate to produce heat, and adding the heat to the steam reformer in the reformulation step.
7. (currently amended) A process as in ~~claim 1 in~~ claim 6 in which the step of burning the heavy fractionate is carried out by the steps of wicking the fuel to a heated surface, vaporizing the fuel from the heated surface, partially mixing the vaporized fuel with air, and stabilizing the flame on porous screens surrounding the wick and flame .
8. (currently amended) A process for converting a certain portion of a first fuel into heat and

an other portion of the first fuel into a second fuel for use in a fuel cell or in other energy producing devices, the process comprising the steps of fractionating the ~~fuel~~ certain portion into a light fractionate and fractionating the other portion into a heavy fractionate, and directing the heavy fractionate into a holding vessel for subsequent use as a the second fuel which is suitable for burning to produce heat or other energy.

9. (currently amended) A process as in claim 8 and further including the step of directing a portion of the heavy fractionate in heat exchange relationship with the first fuel before the fractionating step.

10. (previously presented) A process as in claim 8 and further including the step of burning a portion of the heavy fractionate in the holding vessel to produce heat.

11. (previously presented) A process as in claim 8 and further including the step of desulfurizing the light fraction to produce a desulfurized fuel.

12. (previously presented) A process as in claim 11 in which the desulfurizing step is carried out by a step selected from the group consisting of adsorption and hydrodesulfurization.

13. (previously presented) A process as in claim 11 including the step of using the desulfurized fuel to drive an engine or combustor that has catalytic components.

14. (currently amended) A process as in claim 8 and further including the step of reformulating the light fractionate into a reformat which is suitable for use ~~as a fuel~~ as a third fuel for the fuel cell or other energy-producing device.

15. (previously presented) A process as in claim 14 and further including the steps of burning a portion of the heavy fractionate in the holding vessel to produce heat, and adding the heat from the burning step into the step of reformulating the light fractionate.

16. (currently amended) A process as in claim 14 in which the reformulating step is carried

out by reforming the light fractionate at a temperature below ~~600°C~~ 600°C to produce a first reformat, and reforming the first reformat at a temperature above ~~600°C~~ 600°C to produce a second reformat.

17. (previously presented) A process as in claim 8 in which the fractionating step is carried out by a step selected the group consisting of boiling point fractionation, vacuum fractionation, vacuum distillation, filtration, membrane separation, and adsorption.

18. (previously presented) A process as in claim 8 including the step of burning the light fractionate to drive an engine or a combustor.

19. (currently amended) A process as in claim 8 and further including the steps of wicking the second fuel to a heated surface, vaporizing the second fuel from the wick, partially mixing the vaporized second fuel with air, and ingesting the mixture into an engine.

20. (withdrawn) Apparatus for converting a fuel into reformulated fuel for use in a fuel cell or other energy-producing systems, the apparatus comprising a fractionator which fractionates the fuel into a light fractionate and a heavy fractionate, a steam reformer for reforming the light fractionate into a reformat which is suitable for use as a fuel for the fuel cell or other energy-producing device, and a burner which burns a portion of the heavy fractionate combined with air from an air stream to produce heat, and means for adding the heat to the reformer.

21. (withdrawn) Apparatus as in claim 20 which is further characterized in that the burner comprises a vaporizer for vaporizing the portion of heavy fractionate, the vaporizer comprising a wick that is formed with a plurality of channels that are sufficiently large to deter carbon that is produced by burning of the heavy fractionate from depositing on the wick.

22. (withdrawn) Apparatus as in claim 21 in which the wick is comprised of a ceramic material having a surface, and the surface is formed with a plurality of channels.

23. (withdrawn) Apparatus as in claim 20 in which the burner is further comprised of a perforated screen through which the air stream flows.

24. (withdrawn) Apparatus as in claim 23 in which a plurality of the screens are mounted in the burner separated by a gap, and the gap between the screens is larger than 0.1 in and smaller than 0.4 inches.

25. (withdrawn) Apparatus as in claim 22 in which a plate is positioned above the screen.